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ABSTRACT

The brochure provides suggestions for adapting or building approaches and entrances to the home to provide full accessibility to persons with mobility limitations due to disability or age. Briefly described are modifications for ramps, landings at the top and bottom of a ramp, and door openers and locks. This publication lists 13 sources for wheelchair and stair lifting devices, six sources of special elevating devices, 20 sources of ramps, 12 sources of ramps and lifts, two special option devices, and nine sources of power door openers and locks. Drawings illustrate many modifications, a table presents figures for determining a ramp's rise, and a chart can be used to check slopes of existing walks and ramps. (DB)

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(517) 371-5897 or
1-800-274-7426
Voice or TDD

Arselia Ensign, Editor

HOME ACCESSIBILITY, 2

Living as You Like to Live
No. 66

This is the second in a series of ***REPEATERS*** *compiled for the purpose of informing our readers of sources of equipment which enable persons with mobility limitations to function freely within their home setting.*

We would like to believe that anyone building a new home, or planning to remodel, will take into consideration the importance of full accessibility to every living area within that house. As our population ages, the needs of mobility-limited persons come more and more to the fore. If no more than the aspect of future resale value is considered, plan ahead!

Copies of "Home Accessibility 1, Living as You Like to Live" are still available from the PAM Centre (No. 58). Also available is an earlier Repeater, #48, entitled "Intergenerational Homes," filled with no-cost and low-cost ideas for persons of any age with mobility or sensory limitations. These may be ordered for $2.00 each postpaid.

The editor of this important series is Sister Kathryn Mullarkey, F.S.E., from our own PAM Assistance Centre staff.

APPROACHES & ENTRANCES TO YOUR HOME

The first issue in this series dealt with general information on designing for the convenience and needs of all individuals. This issue will be concerned with approaches and entrances to a home - how do you get to the door, and, once there, how do you get the door open and enter. Future issues will deal with specific rooms or concerns within the home.

A ramp is a connecting bridge between the home environment of an individual and the outside world. Even a single step may keep an individual a virtual prisoner in his own home. A ramp is a simple triangle design structure and as such does not involve complicated building techniques. The ramp should be constructed such that for every foot of rise there should be twelve feet of length. A ratio of 1 to 20 provides easier access and is the preferred incline of a ramp.

Ramps can be made of concrete, wood or a mound of earth. Concrete is generally more expensive than wood but it lasts longer and is easier to maintain. If you are planning to build your own ramp, wood is easier to use and is less expensive. The wood should be treated and the surface of the ramp should be covered with a non-slip surface. This can be done by adding fine sand to the paint or preservative and brushing it on the surface.

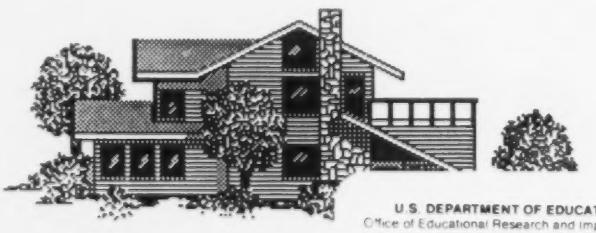
A landing should be provided at the top and bottom of a ramp. This landing should be no less than five feet in length from the door and six feet wide. This is necessary to provide safe space for an individual using a mobility aid to be able to open the door easily and to allow someone using a wheelchair to open the door without rolling back down the ramp.

There is no particular barrier free design building code for residential ramps in the state of Michigan, but there may be particular specifications in your city or county. Contact the Building Officials in your local area for more information.

Prefabricated metal ramps may be obtained to meet the needs of a particular home. These ramps may be permanently installed or portable. Information on both types has been included here.

Ramps may also be rented on a short term basis. Some sources have been included here, and you may contact the PAM Assistance Centre for more information.

Also included in this issue are some options for door openers and locks. This is not an all inclusive listing but is provided to give you a glimpse of the options available.



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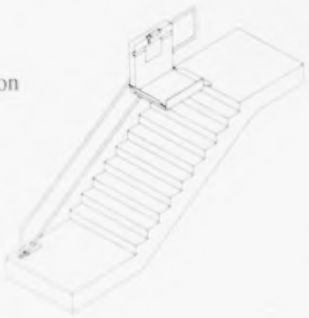
WHEELCHAIR & STAIR - LIFTING DEVICES

M = Manufacturer
D = Distributor
E = Elevator
S = Stairlift
W = Wheelchair Lift
P = Porch Lift
SE = Special Elevating Device



American Stair-Glide Corporation
4001 East 138th Street
Grandview, MO 64030
800-383-3100
M - S,W, P, E

The Cheney Company
P. O. Box 188
2445 S. Calhoun Road
New Berlin, WI 53151
800-782-1222
M - S, W, P, SE, E

CVC Mobility, Inc.**
10061 Clow Creek Road
Plainfield, IL 60544
800-888-5770
M - S, W

Econol Stairway Lift Corporation
2513 Center Street
Cedar Falls, IA 50613
319-277-4777
M - E, S, W

The Flinchbaugh Company, Inc.
390 Eberts Lane
York, PA 17403
717-848-2418
M - S, W

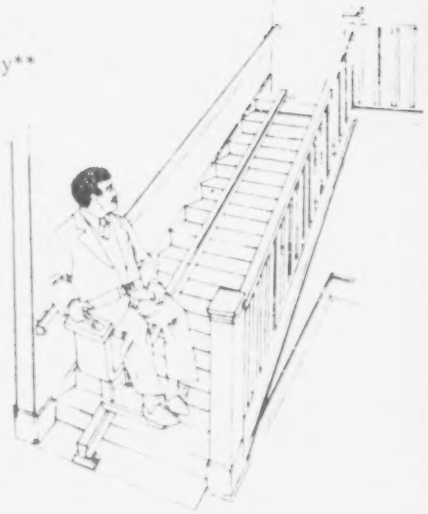
Florlift of New Jersey, Inc.**
41 Lawrence Street
East Orange, NJ 07017
201-429-2200
M - W, E, P, SE

Garaventa (Canada) Ltd.
P.O. Box L-1
Blaine, WA 98230
800-663-6556
M - W, SE

Inclinator Company of America**
2200 Paxton Street
P.O. Box 1557
Harrisburg, PA 17105-1557
717-234-8065
M - S, E

National Wheel-O-Vator Company, Inc.
P.O. Box 1308
Patterson, LA 70392
800-551-9095
M - S, W, P

Waupaca Elevator Company**
P.O. Box 246
Waupaca, WI 54981
715-258-5581
M - E

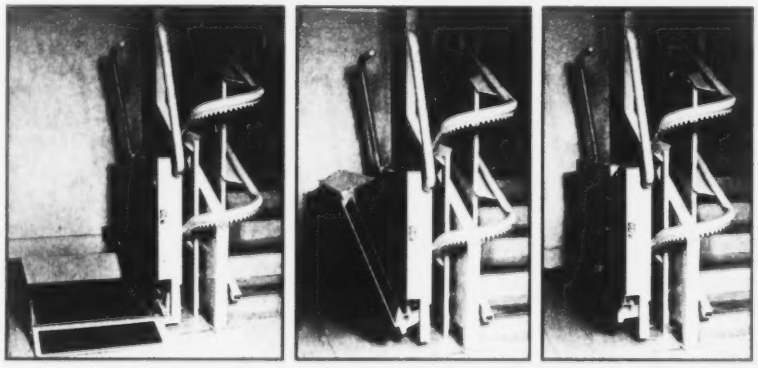


Medi-Serv Company
126 E. Washington Street
P.O. Box 530
DeWitt, MI 48820
517-669-3540
D - S, W, P

Mobility Systems
861 Robinwood Court
Traverse City, MI 49684
616-941-4326
D - S, W, P

Whitakers
41 Douglas Avenue
Yonkers, NY 10703
914-423-4200
D - S, W, P, E, SE

**Devices not approved for buildings that are subject to Section 512.10 of the barrier free design requirements of the State Construction Code.



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SPECIAL ELEVATING DEVICES

Detroit Elevator Company
1938 Franklin Street
Detroit, MI 48207
313-259-3710

General Elevator Company
15470 Racho Road
Taylor, MI 48180
313-374-5005

J.R. Moser Elevator
18443 Marion Road
Brant, MI 48614
517-585-3141

McNally Elevator Company
223 W. Ransom Street
Kalamazoo, MI 49006
616-381-1860

ProLIFT
775 Davis Street
Suite 12
Plymouth, MI 48170
313-455-9172

R & B Manufacturing
3211 Vanderbilt Road
Portage, MI 49002
616-329-0705

RAMPS

M = Manufacturer
D = Distributor
R = Ramp
PR = Portable Ramp
PT = Portable Track

Access to Recreation, Inc.
2509 E. Thousand Oaks Bou levard
Suite 430
Thousand Oaks, CA 91362
800-634-4351
D - PR, PT

Alumi Ramp, Inc.
90 Taylor Street
Quincy, MI 49082
517-639-8777
M - R, PR, PT

CLEO, Inc.
3957 Mayfield Road
Cleveland, OH 44121
800-321-0595
D - R

Crump Products, Inc.
333 Guthrie Green
Louisville, KY 40202
502-583-6046
M - R, PR

Dr. Leonard's Health Care Products
74 20th Street
Brooklyn, NY 11232
718-768-0010
D - PR, PT

Fred Sammons, Inc.
Box 32
Brookfield, IL 60513-0032
800-323-5547
D - PR

Great Lakes Docks & Decks
7427 Dyke Road
Fair Haven, Michigan 48023
313-725-0009
D - R, PR, PT

Handi-Ramp, Inc.
P.O. Box 745
1414 Armour Blvd.
Mundelein, IL 60060
800-876-RAMP
M - R, PR, PT

Homecare Products
P.O. Box 88694
Seattle, WA 98188
206-251-9183
D - PR, PT

Hopkins Medical Products
1120 Wilso Drive
Baltimore, MD 21223-9986
301-525-0077
D - PR, PT

JH Industries, Inc.
8901 E. Pleasant Valley Road
Cleveland, OH 44131
800-321-4968
M - R

Lumex Inc.
100 Spence Street
Bay Shore, NY 11706
800-645-5272
M - PR, PT

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Medical Line Warehouse
6130 Clark Center Avenue, #103
Sarasota, FL 34238
800-247-2256
D - R

Porta-Ramps
Div. of Young Enterprises
5592 E. La Palma Avenue
Anaheim, CA 92807
800-654-RAMP
M - R, PR, PT

Sears Health Care
contact local store
or call
800-255-3000
D - R, PR

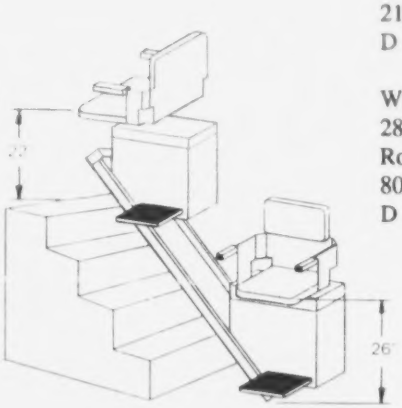
St. Louis Medical Supply
10821 Manchester Road
(at Lindbergh)
Kirkwood, MO 63122
800-950-6020
D - PR, PT

Trans-Aid Corporation
Sunrise Medical
13130 S. Normandie Avenue
Gardena, CA 90249
800-538-8966
D - R, PR, PT

Travel Ramp, Inc.
P.O. Box 2015
Alachua, FL 32615
904-462-5267
M - R, PR

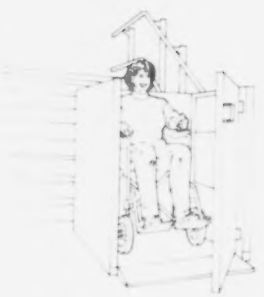
West Medical, Inc.
411 Waverley Oaks Rd.
Waltham, MA 02154
800-222-6800
D - PR, PT

Wheelchair Carrier, Inc.
P.O. Box 79
726 Farnsworth Rd.
Waterville, OH 43566-0079
419-878-8511
M - PR, PT



RAMPS & LIFTS

Adaptive Products, Inc.
645 South Addison Road
Addison, IL 60101
312-832-0203
D - S, W, P, SE, E, R, PR, PT



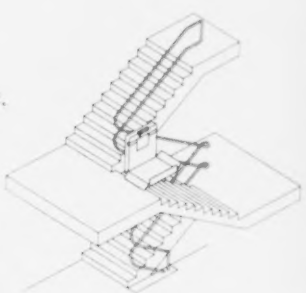
CARE Medical Equipment Inc.
1877 N.E. Seventh Avenue
Portland, OR 97201
800-443-7091
D - S, W, P, SE, PR, PT

Great Lakes Docks & Decks
7427 Dyke Road
Fair Haven, Michigan 48023
313-725-0009
D - R, PR, PT

Medical Equipment Distributors, Inc.
3223 S. Loop, Suite 150
Lubbock, TX 79423
800-253-4134
D - S, W, P, SE, PR, PT

Shugarman Surgical Supply
3134 Dorr Street
Toledo, OH 43607
419-536-3767
D - S, W, P, SE, E, R, PR, PT

Transportation Concepts Limited
P. O. Box 24141
Lansing, MI 48909
517-882-0033
D - S, W, P, SE, E, R, PR, PT
Will custom build ramps of wood or aluminum to suite needs of the individual.



Tri-State Mobility Equipment Co., Inc.
940 Cleveland Avenue, SW
Canton, OH 44707
216-489-6666
D - S, W, P, SE, R, PR, PT

Wright & Filippis, Inc.
2845 Crooks Road
Rochester Hills, MI 48309
800-482-0222
D - S, W, P, SE, E, R, PR, PT

5

CHART TO CHECK SLOPES OF EXISTING WALKS & RAMPS

(NOTE: DO NOT USE TO CONSTRUCT NEW RAMPS)

FOR ACCURACY

- use a long pencil
- make sure pencil swings freely
- check level surface first
- confirm ramp slope in a couple of locations
- if copying, mounting, or plastic covering, cut along one of bottom lines after

SLOPE 1 in.	% slope	OUTLINE OF MICHIGAN Construction Code Commission general rules	
		Interior or exterior ramps with landings and handrails	Walks or floor slopes
6	16.6		
8	12.5		
10	10.0		
12	8.33	ACCEPTABLE	
16	6.25	PREFERRED	
20	5.00	PREFERRED	ACCEPTABLE

MICHIGAN CENTER FOR A BARRIER FREE ENVIRONMENT

Designed for the

601 West Maple Street, Lansing, MI 48906

Portable ramps may be rented from the following:

Equity Management Company
P. O. Box 70033
Lansing, Michigan 48907
517-321-6201
Company also has ramp kits available for purchase as well as blueprints to make your own ramp.

Sparrow Health Care Supply
2216 East Michigan Avenue
Lansing, Michigan 48912
517-371-2115

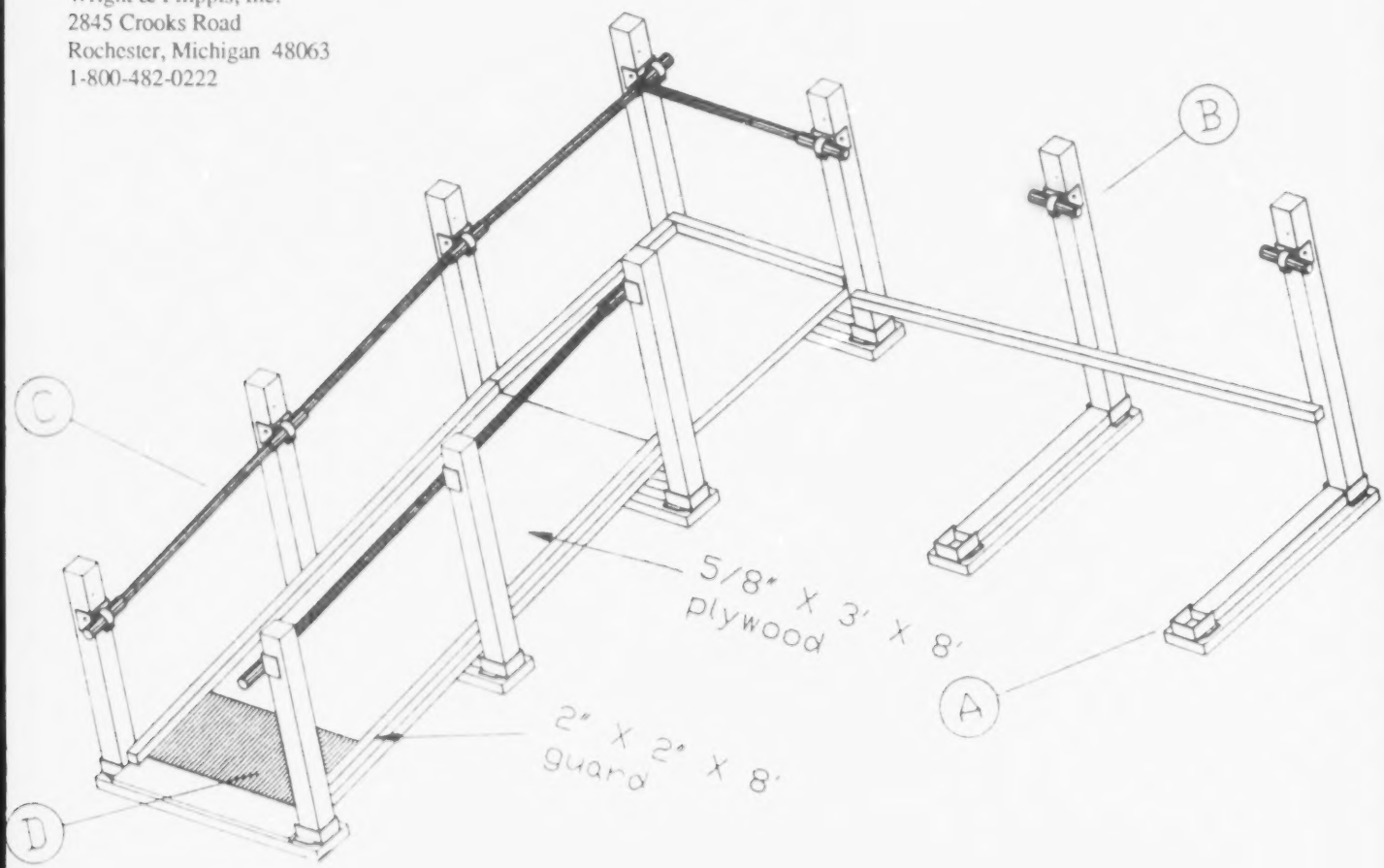
Transportation Concepts, LTD.
P.O.Box 24141
Lansing, Michigan 48909
517-882-0033

Wright & Filippis, Inc.
2845 Crooks Road
Rochester, Michigan 48063
1-800-482-0222

SPECIAL OPTION DEVICES

STAIR-TRAC
Garaventa (Canada) Ltd.
P.O. Box L-1
Blaine, WA 98230
800-663-6556
Wheelchair mounts onto Stair-trac to climb stairs.

ACCESS MOBILITY SYSTEM
Quest Technologies
766 Palomar Ave.
Sunnyvale, CA 94086-9716
408-739-3550
Power chair on tank-like tracks and wheels that allows it to go practically anywhere, indoors or out.



Copyright by: Equity Management Company, 1990.
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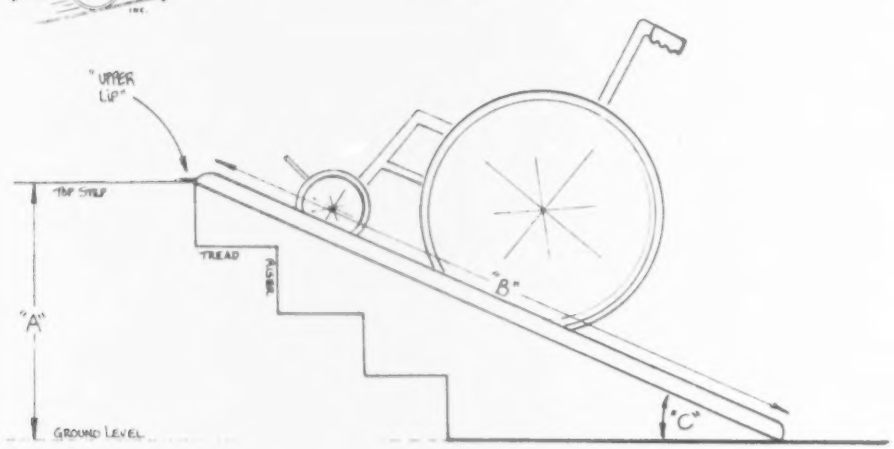
Rise ↓ / Ramp →	5'	7'	7.5'	10'	12'	13'	14'	15'	16'	17'	18'	19'	20'	21'	22'	23'	24'	25'	26'	27'	28'	29'	30'
	30"	42"	60"	84"	90"	120"	144"	156"	168"	180"	192"	204"	216"	228"	240"	252"	264"	276"	288"	300"	312"	324"	336"	348"	360"
3"	5.5°	4°	3°	2°																			
4"	7.5°	5.5°	4°	3°	2.5°	2°																	
5"	9.5°	7°	5.5°	4°	3°	2.5°	2°																
6"	11.5°	8°	5.5°	4°	3.5°	3°	2.5°	2°															
7"	13.5°	9.5°	6.5°	5°	4.5°	4°	3°	2.5°	2.5°	2°													
8"	15.5°	11°	7.5°	5.5°	5°	4°	3.5°	3°	3°	2.5°	2°												
9"	17.5°	12.5°	8.5°	6°	5.5°	4.5°	3.5°	3.5°	3°	3°	2.5°	2°											
10"	19.5°	14°	9.5°	7°	6.5°	4.5°	4°	4°	3.5°	3.5°	3°	3°	2.5°	2.5°	2°								
12"		16.5°	11.5°	8°	7.5°	5.5°	4.5°	4.5°	4°	4°	3.5°	3.5°	3°	3°	2.5°	2.5°	2.5°	2°					
14"		18.5°	13.5°	9.5°	9°	6.5°	5.5°	5°	4.5°	4.5°	4°	4°	3.5°	3.5°	3°	3°	3°	3.5°	2.5°	2.5°	2.5°	2°	
16"			15.5°	11°	10°	7.5°	6.5°	6°	5.5°	5°	4.5°	4.5°	4°	4°	3.5°	3.5°	3.5°	3°	3°	3°	2.5°	2.5°	2.5°	2.5°	2.5°
18"			17.5°	12.5°	11.5°	8.5°	7°	6.5°	6°	5.5°	5.5°	5°	4.5°	4.5°	4°	4°	4°	3.5°	3.5°	3.5°	3°	3°	3°	3°	2.5°
20"			19.5°	14°	13°	9.5°	8°	7.5°	6.5°	6°	6°	5.5°	5°	5°	4.5°	4.5°	4°	4°	4°	3.5°	3.5°	3.5°	3.5°	3°	3°
21"				14.5°	13.5°	10°	8.5°	8°	7°	6.5°	6.5°	6°	5.5°	5°	5°	4.5°	4.5°	4.5°	4°	4°	4°	3.5°	3.5°	3.5°	3.5°
28"				19.5°	18°	13.5°	11°	10.5°	9.5°	8°	8.5°	8°	7.5°	7°	6.5°	6°	6°	5.5°	5.5°	5.5°	5°	5°	4.5°	4.5°	4.5°
35"						17°	14°	13°	12°	11°	10.5°	10°	9°	8.5°	8.5°	8°	7.5°	7°	7°	6.5°	6.5°	6°	6°	5.5°	5.5°
42"							17°	15.5°	14.5°	13.5°	12.5°	12°	11°	10.5°	10°	9.5°	9°	8.5°	8.5°	8°	7.5°	7.5°	7°	7°	6.5°

Handi-Ramp INC.
Products For The Disabled Since 1974
P. O. BOX 745 1414 ARMOUR BLVD
MUNDELEIN, ILLINOIS 60060
(312) 816-7525

RAMP INCLINES- 1ft.:3ft.=19½° incline (Maximum for vehicles)-(NY State Max, Recommended Ratio)
1ft.:5ft.=11½° incline (Maximum for buildings) [1:5.75 = 10° angle of incline]
1ft.:7ft.=8° incline (Acceptable Private Residence for power/manual chair w/help)
1ft.:9ft.=6½° incline
1ft.:12ft=4-5° incline (Gov't Standard-Pub. Bldg.)

Handi-Ramp INC.

-WHEN MEASURING FOR A RAMP-



"A" Rise- Measurement from ground level to top step.

"B" Ramp- Overall Length of ramp.

"C" Grade- Degree of ramp incline.

NOTE: Dimentional drawings and Polaroid snapshots of the application should accompany orders for special ramp systems. Help us to serve you better.

MEMBER

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Power Door Openers and Locks

The following is meant only as an example of the options that are available. This is not a comprehensive listing of the companies that carry these products nor is it an endorsement of these companies.

Door-Aid
Medical Surgical Specialties Limited
1611 West Centre
Kalamazoo, Michigan 49002
616-323-8642
800-527-5672
Low cost, simple installation, power door opener. Portable or stationary transmitter activates opener.

Essex Technologies Corporation
1130 Mark Avenue
Carpinteria, California 93013
805-684-7601
Keyless door lockset. Electronic pushbutton combination lock eliminates the need for keys. Owner programs 5 digit master code, and secondary code which may be used to provide access to others and can be changed. Tamper alarm and keyboard lock activates when 16 random numbers are pressed.

Gyro Tech, Inc./Lanson Industries, Inc.
S82 W18717 Gemini Drive
P. O. Box 906
Muskego, Wisconsin 53150
414-679-0045
Electric automatic door operator. Available for swinging doors, sliding doors, or conversion units for existing doors. Portable radio controlled operating mechanism.

Horton Automatics
4242 Baldwin Boulevard
Corpus Christi, Texas 78405
512-888-5591
800-531-3111
Electric automatic door operator. It operates as well manually as an automatic. Its largest use is for low cost solutions to making a door barrier free.

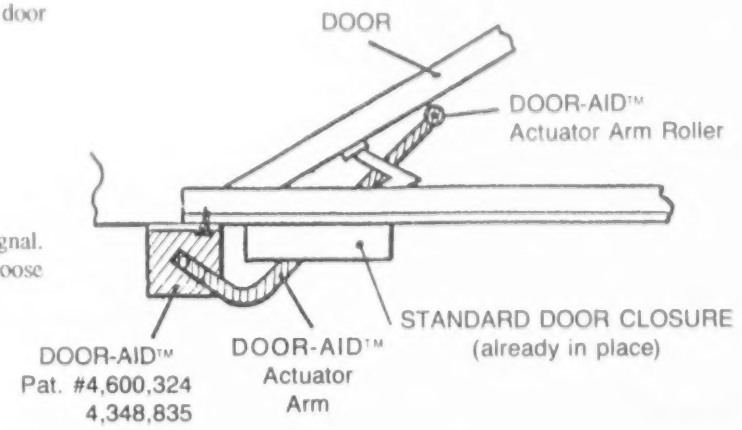
Power Access Corporation
Bridge Street
P. O. Box 235
Collinsville, Connecticut 06022
800-344-0088
The Power Access door operator is activated by an electric signal. There exists an array of controls adapted for special needs. Choose from push button or push plate styles, wireless coded radio controlled switches or specialty sip or puff controls.

Preso-Matic Lock Company, Inc.
3048 Industrial 33rd Street
Fort Pierce, Florida 34946
407-465-7400
Mechanically operated digital door locks. 4 digit locks offer 10,000 possible combinations....7 digit locks offer 10,000,000. The jimmy-proof deadlatch bolt locks automatically when the door is shut. It is accessible at all times by combination from the exterior, and unlocks from the interior by pressing the exit button. All Preso-Matic lock models unlock automatically when the combination is used. There are no knobs or levers to turn or twist!

Schlage Electronics
5452 Betsy Ross Drive
Santa Clara, California 95054-9974
1-800-227-1667
People no longer have to fumble around with keys or insert cards into a slot. Instead, they are able to gain access by merely holding a credit card-sized Command Key within a few inches of a small sensor near the entrance.

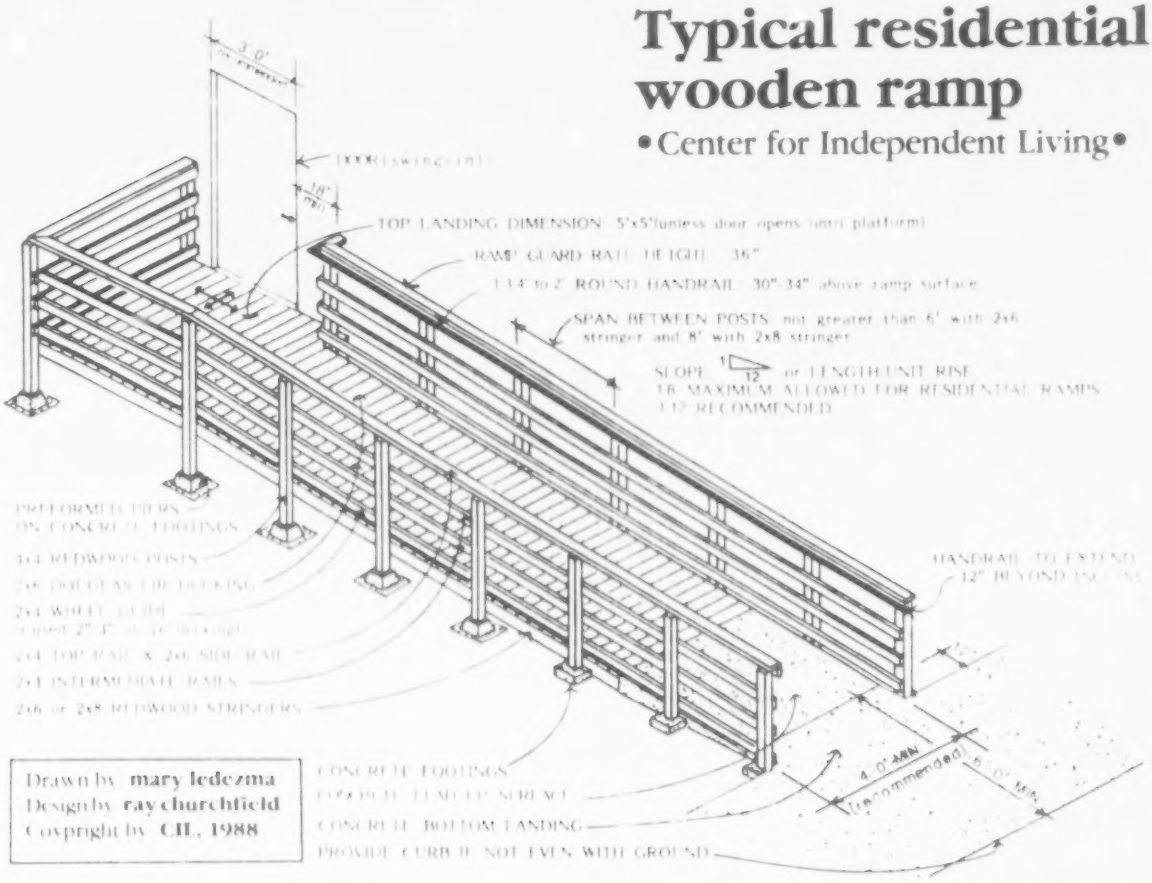
Simplex Security Systems, Inc.
Front & Main Streets
P. O. Box 377
Collinsville, Connecticut 06022
203-693-8391
Completely mechanical pushbutton combination locks eliminates the need for keys. There are thousands of pick-proof combinations possibilities to stop any intruder.

Zygo Industries, Inc.
P. O. Box 1008
Portland, Oregon 97207-1008
503-684-6006
and
Tash, Inc.
70 Gibson Drive, Unit 12
Markham, Ontario L3R 4C2 CANADA
416-475-2212
Wireless remote control system. Can be used for various environmental control functions including door operation.



Typical residential wooden ramp

• Center for Independent Living •


TOP LANDING DIMENSION: 5'x5' (unless door opens into platform)
RAMP GUARD RAIL HEIGHT: 36"
1 3/4" to 2" ROUND HANDRAIL: 30"-34" above ramp surface
SPAN BETWEEN POSTS: not greater than 6' with 2x6 stringer and 8' with 2x8 stringer
SLOPE 1/12 or LENGTH/UNIT RISE
1:8 MAXIMUM ALLOWED FOR RESIDENTIAL RAMPS
1:12 RECOMMENDED
HANDRAIL TO EXTEND 12" BEYOND EXIT/ENTRANCE
CONCRETE FOOTINGS
CONCRETE BOTTOM LANDING
PROVIDE CURB IF NOT EVEN WITH GROUND
4'-0" MIN
recommended
6'-0" MIN

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